

CLAIMS

1. Coating composition comprising one or more polymer binders cross-linkable by polar reaction and at least one catalyst, the cross-linkable polymer binders being comprised in a liquid phase, characterised in that a separate dry sprinkleable powder phase comprises at least a part of the catalyst and/or of a precursor of the catalyst which forms the catalyst in reaction with a co-reactive compound in the liquid phase.
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- 10 2. A coating composition according to claim 1, characterised in that at least one catalyst includes a Lewis acid or Lewis base.
- 15 3. A coating composition according to claim 1 or 2, characterised in that the liquid phase comprises a compound which is reactive with a precursor in the powder phase to form a Lewis base or Lewis acid after the liquid phase is exposed to the powder phase.
- 20 4. A coating composition according to any one of the preceding claims, characterised in that the liquid phase is a two-component composition, the first component comprising one or more polyisocyanates and the second component comprising a polythiol, polyol, polyamine or mixtures thereof.
- 25 5. A coating composition according to any one of preceding claims 1 - 4, characterised in that the liquid phase is a two-component composition, the first component comprising one or more polyepoxies and the second component comprising one or more polythiols.
- 30 6. A coating composition according to any one of preceding claims 1 – 4, characterised in that the liquid phase is a two-component composition, the first component comprising a polyunsaturated binder and at least one electron-withdrawing group linked to a carbon atom of at least one of the

unsaturated bonds, the second component comprising a polythiol and/or a compound comprising acidic CH groups.

7. A coating composition according to claim 3, characterised in that the powder phase comprises one or more phosphine compounds and in that the liquid phase comprises one or more electron-deficient olefins.
8. A coating composition according to any one of preceding claims 1 – 6, characterised in that the powder phase comprises one or more amines.
9. A coating composition according to any one of the preceding claims, characterised in that the catalyst in the powder phase is a solid material in powder form.
10. A coating composition according to claim 9, characterised in that the powder is zinc oxide, calcium oxide and/or calcium carbonate.
11. A coating composition according to any one of preceding claims 1 - 8, characterised in that the powder comprises a solid carrier material in powder form having one or more of the activating compounds adsorbed to its surface.
12. A coating composition according to claim 11, characterised in that the carrier material is sand, diatomaceous earth, zeolite, vitreous beads, barium sulphate, chalk, pigment, or mixtures thereof.
13. A coating composition according to claim 12, characterised in that the powder material is titanium dioxide coated with a zirconium compound.

14. A coating composition according to claim 12, characterised in that the carrier material comprises a mixture of sand having an average particle size above 200 micrometers and a fine sand having an average particle size below 100 micrometers.

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15. A coating composition according to claim 14, characterised in that it comprises more than about 60 wt.% of sand having an average particle size between 300 – 800 micrometers, 15 – 30 wt.% of quartz sand having an average particle size of 20 – 90 micrometers, and a fine grade quartz sand having an average particle size below 10 micrometers, preferably about 3 micrometers.

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16. A coating composition according to any one of the preceding claims, characterised in that the powder phase comprises up to about 8 wt.% of the catalyst, preferably up to about 5 wt.%, more preferably up to about 3 wt.%.

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17. Method of applying a coating composition comprising in a liquid phase one or more polymer binders cross-linkable by polar reaction and in a separate dry powder phase at least one catalyst wherein after application of one or more layers of the liquid phase on a substrate, the powder phase is sprinkled over the wet liquid phase layer.

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25. Method of applying a coating composition comprising in a liquid phase one or more polymer binders cross-linkable by polar reaction and in a separate dry powder phase at least one precursor of a catalyst which forms the catalyst in reaction with a co-reactive compound in the liquid phase wherein after application of a layer of the liquid phase on a substrate, the powder phase is sprinkled over the wet liquid phase layer.

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19. A method according to claim 17 or 18, characterised in that the thickness of the freshly applied layer of liquid phase is less than the particle size of at least a part of the powder phase material, and in that after sprinkling the powder phase over the wet liquid phase layer, a second layer of the liquid phase is applied.

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